NAFLIC

National Association For Leisure Industry Certification

Standards & Related Documents Committee

TECHNICAL BULLETIN — July 2013

370. Electrical Safety of Inflatable Blower Fans

Please take note of the attached safety alert issued by the HSE regarding an electrical safety issue with a particular design of fan blower that has been imported into the UK.

http://www.hse.gov.uk/safetybulletins/inflatable-blower-fans.htm?eban=govdel-safety-bulletins&cr=10-Jul-2013

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Health and Safety Executive
HSE

Electrical safety - inflatable blower fans

Health and Safety Executive - Safety alert	
Department Name:	Field Operations Directorate - Southern Division
Bulletin No:	FOD 3-2013
Issue Date:	9 July 2013
Target Audience:	Entertainment and Leisure industries[1], Inflatable equipment industries and service Inspectors/personnel, Education[2], Catering and Hospitality[3]
Key Issues:	Measures to help maintain the electrical safety and integrity of mains voltage powered fan blowers (imported from China) which could be use in wet conditions for inflating play equipment or advertising inflatables.

Introduction:

The Health and Safety Executive (HSE) have become aware of an electrical safety issue with a particular design of fan blower that has been imported into the UK by a number of suppliers. This type of fan blower is typically used to inflate play equipment (small bouncy castles) and advertising inflatables. The type of fan design affected is one where the electrical socket is fitted to the front of the casing, below the blower outlet (i.e. not on a cable lead) and you can see the rear of the electrical socket & conductors (as below).

[4]

Inflatable blower fan

[5]

Affected fan - rear of electrical socket & conductors

[6]

Affected fan - rear of electrical socket &

conductors

Background:

One of these units was tested and it was found that despite the manufacturer's plate stating the unit complied with the required standards, the connection did not stop water getting onto live contacts. This means anyone touching metal parts of the unit could get a potentially lethal 230v shock.

Connections used on 230v electrical equipment that may be exposed to the weather must be protected to the appropriate standard. It is believed that a number of fan blowers have had a 'black rubber boot' fitted to enclose the terminals but without a cable gland or similar fastening designed to hold the cables securely to the boot itself, it is unlikely these will comply with either standard.

[7]

Figure 1 - rear of 230V ac connector installed to affected units

Known suppliers of this particular design of fan have ceased importing it and have made efforts to contact identifiable customers regarding this issue.

Action required:

Owners/operators of electrical fans have legal duties to ensure these are safe and are strongly advised to bring this Alert to the attention of their competent examiner who should check that the fans comply with all the necessary standards. If the examiner finds this is not the case owners/operators should stop using the fans until they do comply and contact the supplier ASAP.

Some fan suppliers are already contacting their customers to tell them about a modification that will provide the correct level of weather protection and this or other equally effective modifications should be done ASAP.

Relevant legal documents:

- Health & Safety at Work etc Act 1974, Section 6 (1)
- Electricity at Work Regulations 1989 Regulations 4, 6 & 7
- Supply of Machinery (Safety) Regulations 2008, Regulation 7 (2)

References:

- EN 14960:2006 - Inflatable play equipment - Safety requirements and test methods

Further information:

- HSE website[8]

General note:

Please pass this information to a colleague who may have this Product/Equipment or operate this type of system/process.

Link URLs in this page

1. Entertainment and Leisure industries
   http://www.hse.gov.uk/entertainment/index.htm
2. Education
   http://www.hse.gov.uk/services/education/index.htm
3. Catering and Hospitality
   http://www.hse.gov.uk/catering/index.htm
4. Inflatable blower fan
   http://www.hse.gov.uk/safetybulletins/images/inflatable-blower-fans-pic1.jpg
5. Affected fan - rear of electrical socket & conductors
   http://www.hse.gov.uk/safetybulletins/images/inflatable-blower-fans-pic2.jpg
6. Affected fan - rear of electrical socket & conductors
   http://www.hse.gov.uk/safetybulletins/images/inflatable-blower-fans-pic3.jpg
7. Figure 1 - rear of 230V ac connector installed to affected units
   http://www.hse.gov.uk/safetybulletins/images/inflatable-blower-fans-pic4.jpg
8. HSE website
   http://www.hse.gov.uk/index.htm